

ZAMFIRESCU, N., prof. univ.

Cultures on stubble fields. St si Teh Buc 14 no. 7:8-9 J1 '62.

1. "N.Balcescu" Agronomic Institute, Bucharest.

ZAMFIRESCU, N.

COUNTRY : RUMANIA
 CATEGORY : Pharmacology and Toxicology. Cardiovascular
 ABS. JOUR. : Agents
 : RZhsiol., No. 5 1959, No. 23168
 AUTHOR : Arsenescu, Gh.; Zamfirescu, N.; Constantiniu, *
 INST. :
 TITLE : Study of the Action of Strophanthin upon the
 : Phenomenon of Muscular Fatigue
 ORIG. PUB. : Fiziol. norm. si pathol., 1957, 4, No 4, 356-365
 ABSTRACT : The action of the intravenous introduction of
 : 0.25 mg of strophanthin (S) upon the electro-
 : myogram and mechanogram of the flexor muscles of
 : the dactyl in voluntary rhythmical lifting of a
 : load (2 kg) one hour prior to, and $\frac{1}{4}$ hour after
 : administration of S, was studied. S increased the
 : mechanical work by approximately two times. In
 : experiments on a frog, it was found that S removes
 : *I.; Teodorini, S.; Ionescu, V.; Felberg, B.

Card:

1/2

55

00513R001963720008

ZAMFIRESCU, N.; URȚILA, St.

Influence of the light on the absorption of phosphorus in maize and soybean, determined by means of the isotope P^{32} . Studii cerc biol veget 13 no.4:507-516 '61.

1. Comunicare prezentata de N. Salageanu, membru corespondent al Academiei R.P.R., membru al Comitetului de redactie si redactor responsabil, "Studii si cercetari de biologie; Seria biologie vegetala".

EXCERPTA MEDICA Sec 18 Vol 3/9 Cardio. Dis. Sept. 59

2462. Cardio-respiratory function in complete heart block, at rest and during effort
Comportarea functiei cardio-respiratoare in blocul total in repaus si in efort. ZAM-
FIRESCU N., FELBERG B. and BRAUN A. Inst. de Fiziol. Normala si Patol. 'Prof. Dr.
D. Danielopolu', Bucuresti; Inst. de Med., Iasi Rev. Fiziol. 1957, 4/6 (543-553)
Tables 6

Six patients were examined; it was found that adaptation of the cardiorespiratory
system is effected by an increase in systolic output, and through an increased heart
rate. The adaptation, which is sufficient at rest, becomes insufficient in some patients
during exertion, as revealed by an oxygen deficiency.

Graur - Bucharest (XVIII, 6, 15)

RUMANIA/Human and Animal Morphology - (Normal and Pathological) S
Nervous System. Peripheral Nervous System.

Abs Jour : Ref Zhur Biol., No 6, 1959, 26113

Author : Gabrielescu-Velican, Elena; Zanfirescu, N.; Bordeianu, A.; Felberg, B.

Inst : Rumanian Academy of Sciences

Title : Histochemical Changes of Polysaccharides of the Superior Cervical Sympathetic Ganglion of Cat in Irritation of preganglionic Fibers.

Orig Pub : Commun. Acad. RPR, 1957, 7, No 9, 819-825

Abstract : The preganglionic trunk of superior sympathetic ganglion of cat was irritated with electric currents of various frequency and intensity; duration of effect from 10 min to 2 hours. The physiological state of the ganglion was judged by third eyelid contraction or current of effect.

Card 1/2

ZAMFIRESCU, N. R.; FELBERG, B.

Studies on the value of certain tests in determining the aptitude for physical effort. Studii cerc fiziol 6 no.2:325-334 '61.

1. Institutul de fiziologie normala si patologica "Prof. Dr. D. Danielopolu" al Academiei R.P.R.

(PHYSICAL FITNESS) (PULSE)

EXCERPTA MEDICA Sec. 6 Vol. 11/8 Aug. 57
ZAMFIRESCU N.R.

4749. ZAMFIRESCU N.R., ROSENZWEIG S., FELBERG B. and DINULESCU E.
Cercetări spirometrice la cardiaci. Spirographic studies in cardiac patients REV. FIZIOL. NORM. PATOL. 1956, 34 (471-476)
Tables 2

Contrary to what is seen in normal subjects, the pulmonary ventilation of compensated and decompensated cardiac patients decreases when pure oxygen is inhaled. The oxygen consumption is the same whether air or oxygen is breathed. The coefficient of oxygen utilization in the lungs increased by an average of 13.9%. The respiratory frequency remains practically unaltered when oxygen is breathed. Vital capacity was decreased by 11%, and respiratory capacity was only 59.8% of its theoretical maximum; respiratory reserve decreased considerably, whereas respiratory efficiency was little diminished. The expiratory velocity was normal in some of the cases, and increased in others. The pulmonary capacity to be utilized during effort amounted to only 62% of the vital capacity. Respiratory pressure was decreased, and voluntary apnoea was of short duration: 29 sec. for inspiration and 20 sec. for expiration. It is concluded that for complete evaluation of the condition of a cardiac patient, a study of the respiratory function is needed in addition to the usual examinations.

Graur - Bucharest (XVIII. 6. 15)

EXCERPTA MEDICA Sec 15 Vol. 10/11 Chest Diseases Nov 57

2655. ZAMFIRESCU N. R., CANTACUZINO D. and FELBERG B. Inst. de Fiziol. Norm. și Patol. Prof. Dr. D. Danielopolu, București. *Influența oxigenului asupra ventilației pulmonare la normali și cardiaci. Influence of oxygen on pulmonary ventilation in normal subjects and in patients with heart disorders REV. FIZIOL. NORM. PATOL. 1957, 4/1 (68-80) Graphs 8

Spirographical examinations were carried out in normal persons and in cardiac patients without pulmonary lesions and without an oxygen deficiency. The tests, which took place in atmospheric air and in pure oxygen, showed that after an initial diminution, the pulmonary ventilation in normal persons is increased by 13%, whereas in cardiac patients it is decreased by 20%. In normal persons, on respiration of oxygen, the air flow, after a short initial diminution, is increased by 5%, and in cardiac patients it is decreased by 21.5%. The respiratory frequency is very slightly increased in normal persons and very slightly reduced in cardiac patients. The coefficient of oxygen utilization is very little lowered in normal persons and very little elevated in heart patients. To explain the dyspnoea of cardiac patients, besides a series of reflex factors, originating from the lung, muscles, right heart and large veins, special attention is accorded to haemodynamic and humoral factors.

Graur - Bucharest (XV, 6, 18)

NECULA, N., ing.; ZAMFIRESCU, R., ing.; CEANGA, E., ing.

Electronic telephone exchanges. Telecommunicatii 6 no.5:210-219
S-0 '62.

ZAMFIRESCU, Tudor I.

Geometric constructions with the ruler, compass, and trisector.
Studii cerc mat 15 no. 3:405-411 '64.

VILCEANU, Sabin, student (Bucuresti); DRUGA, M.Gh., absolvent (Brazza);
ZAMFIRESCU, Tudor I., student (Bucuresti); CAPITAN, Gh.I., prof.
(Anina); LUSZTIG, Gh., elev (Timisoara); BAZACOV, Gh. (Tr. Severin)
GEORGESCU, Corneliu, prof. (Craiova); B. VITALYOS, Erzsebet (Cluj).

Solved problems. Gaz mat B 14 no.11:669-678 N°63

PETRESCU, Anastasie (Craiova); DINULESCU, C., prof. (Buzau); ZAMFIRESCU, Tudor; VASILIU, Florian (Bacau); LEONTE, A. (Bucuresti); OPREA, Miron (Ploiesti); POPESCU, Gh.; MANESCU, I., prof. (Rimnicu Vilcea); BACHINA, V., prof (Breaza); MASGRAS, V. (Bucuresti)

Solved problems. Gaz mat B 14 no.6:343-356 Je '63.

ZAMFIRESCU, Tudor (Bucuresti)

In connection with the trisectors of a triangle. Gaz mat B
15 no.11:483-485 N '64.

ZAMFIRESCU, Tudor

On the composition of monotone and convex functions. Studii cerc
mat 16 no.10:1221-1230 '64.

ZAMFIRESCU, Tudor (Bucuresti); LEVIN, Alexandru (Tallin, U.S.S.R.); ACU, Dumitru (Nasaud); SANDULACHE, C. (Negresti); PRAVAT, V.V. (Iasi); SACTER, O.; POPA, Eugen (Iasi); ZAMFIRESCU, Tudor; VOICULESCU, Dan (Bucuresti); IONESCU-TIU, C.; BOICESCU, Vlad (Craiova); MAINUTI, Ion (Timisoara); MUSTA, Stefan (Oradea); BERDAN, C. (Bacau); PETRESCU, P. Anastasie (Craiova); LUSZTIG, Gh. (Bucuresti); BRINZANESCU, V. (Bucuresti)

Solved problems. Gaz mat B 16 no.2:64-82 F '65.

ZAMFIRESKU

RUMANIA/Chemical Technology - Cellulose and Its Derivatives.
Paper.

H.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 56138

Author : Zamfiresku

Inst : -

Title : Standardization of Printing Paper.

Orig Pub : Tehn. grafica, 1956, No 4, 38-40.

Abstract : The changes made in the new standards for printing paper (P) are examined. They were adapted in Rumanian People's Republic since January 1, 1957, for the purpose of improving the quality and technical-economical indices. To improve the quality control of B, a distribution through large bases (equipped with laboratories and qualified personnel for a better quality control and correct B storage) is recommended.

Card 1/1

ZAMFIRESKU, M.

IONESCU-MIKHAYESHT', K.; VISNER, B.; SERZHIYESKU, D.; GORODNICHANU, F.;
ZAMFIRESKU, M.

Experimental investigations on strains of the poliomyelitis virus
isolated in the Rumanian People's Republic during 1949-50. Zhur.
nevr. i psikh. 55 no.2:101 F '55. (MIRA 8:4)
(POLIOMYELITIS VIRUS,
strains isolated in Rumania)

ZAMFIRESKU, Nr.; FELBERG, B.

Change of cardiac dynamics under the influence of the voluntary
hypertension test. Rev. sci. med. 7 no.1/2:122-126 '62.
(HEART FUNCTION TEST)

ZAMFIRESCU, T. (Bucuresti); ATANASIU, Ionel (Focsani); VIOREL,
Voda Gh. (Bucuresti); SIMIONESCU, Gh. D.; VASILESCU, C.
(Ploiesti); BANICA, Octavian (Cimpulung-Muscel); BUICLIU,
G.; DORIN, Alexandru (Bucuresti); IOAN, Filip, prof.
(Sacadat)

Solved problems. Gas mat B 15 no. 5:209-218 May '64.

MANESCU, L., prof. emerit (R. Vilcea); BEJAN, Mircea (Galati); MUNTEANU, Dumitru (Bistrita); SACTER, O.; SIMION, A. (Iasi); LEVIN, Alexandru, (Tallin, U.S.S.R.); HADIRCA, L., prof. (Breaza); LIVIU, Petre (Pucioasa); GRECU, Eftimie (Bucuresti); BENA, Dorin (Caransebes); SIMOVICI, Dan (Iasi); ILIE, Nicolae (Gaiesti); BOICESCU, Vlad (Craiova); VOICULESCU, Dan (Bucuresti); POPESCU, Adrian (Sibiu); PESTROIU, Daniel (Tirgu Jiu); NANUTI, Ion (Timisoara); MUSTA, St. (Oradea); POPESCU, Adriana (Sibiu); IONESCU-TIU, C.; LAZAR, Maria (P. Neamt); FOCSENEANU, M.I.; ACU, D. (Cluj); ZAMFIRESCU, Tudor; MOCANU, H. Ovidiu (Iasi); GEORGESCU, G. (Craiova); BERDAN, C. (Bacau); IACOMI, Ioana (P. Neamt)

Proposed problems. Gaz mat B 15 no.3:122-127 Mr '64.

ZAMFIRESCU, Tudor, student (Bucuresti)

Isogonal and rotational angles in a triangle. Gaz mat B 14 no. 4:
207-214, Ap '63.

ZAMFIREZCU, M., ing.

Determining the printing capacity of paper and cardboard by rapid tests. Cel hirtie 11 no. 8:295-301 Ag*62.

ZAMIATINA, V. A.

V. V. Korshak and V. A. Zamiatina, Studies of High Molecular Weight Compounds.
Article XVI. The Polydispersion of Polyamides. P. 412.

SO: Bulletin of the U.S.S.R. Academy of Sciences (Chemistry Series)
Izvestia Akad. Nauk, S.S.S.R., No. 4, 1948.

ZAMIATINA, V. A.

"On Polyvinyl Derivatives. II. On Polyvinyl butyl Ether." Korshak, V. V. and Zamiatina, V.A.
(p. 947)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1945, Volume 15, no. 11-12.

ZAMICHLAIEVA, A. M.

"Sur la question de la structure du gossipol." Zamichlaiewa, A. M., et Kriwitch, S. S.
(p. 1969)

SO: Journal of General Chemistry (Zhurnal Obsheoi Khimii). 1937, Volume 7, No. 14.

ZAMIECHOWSKA-MIAZGA, J.

Investigations on polysaccharides of *Trichophyton rosaceum*.
Bul Ac Pol biol 10 no.1:3-7 '62.

1. Department of Medical Microbiology, School of Medicine, Warsaw.
Presented by E.Mikulaszek.

*

ZAMIECKI, H.

A car for testing the condition of tracks of the Swiss railroads. p.121

(PRZEGŁAD KOLEJOWY DROGOWY. Vol. 9, No. 6, June 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 10, October 1957. Uncl.

ZAMIECKI, H.

Remarks on Regulations D1. Pt. 4.

P. 1. (PRZEGLAD KOLEJOWY DROGOWY) (Warszawa, Poland) Vol. 10, no. 1, Jan. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

ZAMIECKI, H.

Medium repairs by filling in and cleaning the ballast between ties. Przegląd
Drog. Dodatek.

P. 15. (PRZEGLĄD KOLEJOWY DROGOWY) (Warszawa, Poland) Vol. 10, no. 2, Feb. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

ZAMIECKI, H.

Superlevation of tracks for trains moving at widely different speeds.

P. 25. (PRZEGLAD KOLEJOWY DROGOWY) (Warszawa, Poland) Vol. 10, no. 2, Feb. 1958

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, no. 5, 1958

ZAMIECKI, H.

ZAMIECKI, H. Technological process in tamping wooden ties on broken stone by regulation of the pits. Przegląd, p. 33

Vol. 8, no. 3, Mar. 1956
PRZEGŁAD KOLEJOWY DROGOWY
TECHNOLOGY
Warszawa, Poland

So: East European Accession, V ol. 6, no. 2, 1957

ZAMIECKI, H.

Remarks on Regulations Dl. Pt. 6. p. 97.

PRZEGLAD KOLEJOWY DROGOWY. (Wydawnictwa Komunikacyjne) Warszawa, Poland.
Vol. 10, no. 5, May 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 8, Aug. 1959.

Uncl.

ZAMIECKI, H.

Continuous reconditioning of the railroad track. p. 131.

PRZE MIAŁ KOLEJOWY DROGOWY. (Wydawnictwa Komunikacyjne) Warszawa, Poland.
Vol. 10, no. 6, June 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 8, Aug. 1959.

Uncl.

ZAMIECKI, H.

Technology and organization of measured continuous grounding on French railroads.
Pt. 1. (To be contd.) Przegląd Droz. Dodatek. p. 101.

PRZEGŁAD KOLEJOWY DROGOWY. (Wydawnictwa Komunikacyjne) Warszawa, Poland.
Vol. 11, no. 6, June 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 8, Aug. 1959.
Uncl.

ZAMIECKI, H.

ZAMIECKI, H. Technological process of tamping ties with pneumatic tamping bars on broken stones. (To be contd.) Przeglad. p. 90

Vol. 8, no. 6, June 1956
PRZEGŁAD KOLEJOWY DROGOWY
TECHNOLOGY
Warszawa, Poland

So: East European Accession Vol. 6, no. 2, 1957

ZAMIKHOVSKIY, B.

Cinder. Okhr.truda i sots.strakh. 4 no.7:22-24, JI '61.

(MIRA 14:7)

(Moscow--Founding--Hygienic aspects)

ZAMIKHOVSKIY, D.Ye.

Differential diagnosis of Addison-Biermer disease from tumors of the stomach. Zdrav.Bel. 8 no.7:71-72 J1 '62. (MIRA 15:11)

1. Pinskaya gorodskaya bol'nitsa (glavnyy vrach A.V.Oliferko).
(STOMACH—TUMORS) (PERNICIOUS ANEMIA)

ZAMIKHOVSKIY, D.Ye.

Clinical aspects and treatment of chronic septic endocarditis.
Zdrav. Bel. '7 no. 4:46-48 Ap '61. (MIRA 14:4)

1. Pinskaya gorodskaya bol'nitsa (glavnyy vrach A.V. Oliferko).
(ENDOCARDITIS)

ZAMIKHOVSKIY, D.Ye.

Use of thiphen-promedol in myocardial infarct. Zdrav. Belor. 6
no.6:66-67 Ja '60. (MIRA 13:8)

1. Iz Pinskoy gorodskoy bol'nitsy (glavnyy vrach M.V. Oliferko).
(HEART--INFARCTION) (ACETIC ACID)
(PIPERIDINE)

VERTEPOVA, V.M., dots.; VOL'PYAN, Ye.L., ass.; ZAMIKHOVSKIY,
I.Z., ass.; RAMENSKIY, S.B., prepod.; SOROKINA, M.I.,
prepod.; EPSHTEYN, I.M., prof., red.; SHCHUKIN, P.I.,
red.;

[Methodological instructions for practical work in urology]
Metodicheskie ukazaniia k prakticheskim zaniatiiam po uro-
logii. Pod red. I.M.Epshteina. Moskva, 1963. 37 p.
(MIRA 16:12)

1. Moscow. Pervyy meditsinskiy institut.
(UROLOGY--HANDBOOKS, MANUALS, ETC.)

ZAMIKHOVSKIY, I.Z.; SEROV, V.V.

Renal biopsy as a diagnostic method. Eksper. Khir. i anest.
9 no.3:49-54 My-Je '64. (MIRA 18:3)

1. Kafedra urologii (zav. - prof. I.M. Epshteyn) i kafedra patolo-
gicheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. A.I.
Strukov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni
Sechenova.

24-1800

27839

S/032/61/027/010/016/022
B104/B102

AUTHORS: Konradi, G. G., and Zamilatskiy, Ye. P.

TITLE: Determination of the elastic moduli in a wide range of temperatures

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 10, 1961, 1296-1299

TEXT: The authors developed a method that makes it possible to determine the elastic moduli in a temperature range of from - 190 to + 1000°C. A cylindrical test body is suspended by two thin metal wires one of which is the lead-in for acoustic vibrations. The latter pass through the test body to the second wire, and through a piezoelement, are visualized on the screen of an oscilloscope. The resonance frequency of this system depends on the elastic moduli of the test body. The temperature dependence of these elastic moduli can be ascertained by measuring the resonance frequencies at various temperatures. A 176 mm long test cylinder of 7 mm diameter was used in determining the Young's modulus E. The modulus of rigidity, G, was determined with dumbbell-shaped test bodies whose cylindrical middle part had a diameter of 8 mm. The described method had

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Determination of the elastic moduli ...

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been developed on the basis of previous works by A. S. Matveyev, Ye. Kh. Ripp, and L. S. Freyman (Zavodskaya laboratoriya, XVII, 5 (1952)) and by I. N. Yermolov and Ye. Kh. Ripp (Zavodskaya laboratoriya, XXI, 6 (1955)). Steel of the types 40X (40Kh), 60C2A (60S2A), 1X18H9T (1Kh18N9T), and Y8 (U8) and an AMr6 (AMg6) aluminum alloy were tested on the arrangement shown in Fig. 2. The results show that in the temperature range examined, the elastic moduli E, G, and μ of 1Kh18N9T steel are linear functions of temperature. The temperature dependence of the elastic moduli of U8 steel indicates a phase conversion. E and G were determined with an error of 0.2 - 0.4%, the Poisson's ratio μ with an error of $\pm 3\%$. B. M. Ovsyannikov is mentioned. There are 3 figures and 11 Soviet references.

Fig. 2. Experimental arrangement. Legend: (1) vibrator, (2) receiver, (3) metal wire, (4) test body, (5) thermocouples, (6) ceramic, (7) container for electric furnace, (8) muffle, (9) furnace lid, (10) lead-ins for argon.

Card 2/3

ZAMILIN, V.S.

[Repair of electric measuring instruments] Remont elektroizmeritel'nykh
priborov. Moskva, Rozgiznestprom, 1954. 68 p. (MLRA 7:12D)

ZAMINYAN, A.A., Cand Tech Sci -- (diss, "^{Measurement fall}~~Embarrassed decrease~~
and vertical movement of suspended matter (For monodispersed
spherical particles).\" Len, 1958, 7 pp (Min of Higher Education
^{Len Order of Lenin Red Banner Tech Inst in Moscow)}
USSR. ~~Kazan Aviation Inst~~ 120 copies (KL, 27-58, 109)

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~~Z. R. AMINYAN, H. H.~~

GASPARYAN, A.M.; ZAMINYAN, A.A.

Some problems in studying the constrained fall of particles and the method used in the experiment. Dokl. AN Arm. SSR 25 no.4:213-218 '57.

(MIRA 11:2)

1. Khimicheskiy Institut AN ArmSSR. Predstavleno N.Kh. Arutyunyanom..
(Chemistry, Physical and theoretical)
(Sedimentation and deposition)

GASPARYAN, A.M.; ZAMINYAN, A.A.

Restricted fall of spherical particles. Trudy Inst.khim.AN SSR
17:106-113 '59. (MIRA 13:4)

1. Institut khimii AN ArmSSR.
(Sedimentation analysis)

15
2
A method of formation of spherical glass particles of small dimensions. A. M. Gasparyan and A. A. Zaminyan.

Doklady Akad. Nauk Armyan. S.S.S.R. 23, 67-9 (1955) (in Russian)

Abstract: A method is described for the formation of spherical glass particles of small dimensions by the use of a special apparatus.

U.S. PATENT OFFICE

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GASPARYAN, A.M.; ZAMINYAN, A.A.

Restrained fall of spheroidal particles. Dokl.AN Arm.SSR 22 no.1:
17-21 '56. (MIRA 9:7)

1.Khimicheskiy institut Akademii nauk Armyanskoy SSR. Predstavleno
N. Kh.Arutyunyanom.
(Particles) (Chemistry, Analytic)

GASPARYAN, A.M.; ZAMINYAN, A.A.; IKARYAN, N.S.

Testing of equations describing the vertical motion of a
polydisperse suspension. Izv. AN Arm. SSR. Ser. tekhn. nauk 16
no.1:29-40 '63. (MIRA 16:6)

(Chemical equations)

GASPARYAN, A.M.; ZAMINYAN, A.A.

Vertical motion of a monodisperse suspension. Dokl. AN Arm. SSR
28 no.3:127-131 '59. (MIRA 12:7)

1. Predstavleno akademikom AN Arm. SSR N. Kh. Arutyunyanom.
(Colloids) (Dynamics of a particle)

s/173/59/012/04/02/003

AUTHORS: Gasparyan, A.M., Zaminyan, A.A.

TITLE: Constricted Drop of Particles

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Seriya tekhnicheskikh nauk, 1959, Vol. 12, No. 4, pp. 23 - 26

TEXT: Processes involving a movement of suspensions in a liquid or gas medium are widely applied in industrial and technical fields, e.g., ore concentration. The suspended layer method is studied and tested in order to obtain more precise approximation equations on constricted drop of particles. Several approximation equations [Refs. 1 - 11] are discussed. Graphic presentation of equations (1) through (7) are shown in Figures 1 and 2. A description of three methods of measuring the velocity of the constricted drop of spheric particles (C) is presented. Following symbols are used: volumetric speed of the medium (Q), volumetric speed of solid phase (q), complete section of column (F), mass of particles (u), density of solid phase (p), height of suspended layer (l), diameter of column (D), diameter of particles (d). The principal features of the suspended layer method No. 1 are shown in Figure 3b. The volumetric concentration of particles is expressed by $\varphi = \frac{q}{p \cdot F \cdot l}$. Absolute vertical position

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Constricted Drop of Particles

of the column is essential; a slight slant of only 1° can cause a deviation of 10 - 12% as shown by curves $C = f(\varphi)$ in Figure 4. The effect of the profile deformation of the flow on entering the suspension was determined by suspending glass globules of the 100 + 140 mesh fraction and quartz sand of 0.0133 cm. The results shown in Figure 5 prove that this influence is negligible. Experimental values of $(D : d)$, i.e., when the walls of the column bear no influence on the velocity of the constricted drop, are indicated in Figure 6; the unbroken line shows average values and the dotted line indicates the probable direction of extrapolation. Figure 7 shows experimental curves obtained by monodispersed aluminum silicate globules of $d = 0.29$ cm which were suspended under equal conditions in five columns of varying diameters. The influence of concentration φ on a decrease of C is shown in Table 1, i.e., the index of C corresponds to the curves in Figure 7. Method No. 2, i.e., direct measuring of C is shown in Figure 3a. The velocity of the constricted drop of particles is determined by $C = \frac{q}{F \varphi}$. This method was used by P.F. Yeregin [Ref. 18] but considerable errors are possible as a compound drop may occur in the column instead of a constricted drop. Method No. 3, i.e., the measuring of C in suspension flow was already described in Reference 19 and later experiments were carried out by

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Constricted Drop of Particles

S/173/59/012/04/02/003

N.S. Ikaryan in the laboratory of the Academy of Sciences of the Armyanskaya SSR. From a large quantity of quartz sand 1.5 kg of an almost monodispersed fraction was obtained by a repeated hydraulic separation. Interrelation of $C = f$ of this fraction was determined by experimental suspension of the layer and measuring of C in the suspension flow. The layer suspension method provides reliable results in regard to laws governing the constricted drop of globular particles, of homogeneity, sphericity, monodispersion of particles, vertical position and proper diameter of column, and isothermic test conditions have been observed. This method can also be used for measuring the velocity of the constricted drop of shapeless particles, the principles of which differ from that of globular particles [Ref. 13]. Compared to other C measuring methods, the method of layer suspension offers the following advantages: simplicity, easy provision of isothermic conditions, if necessary also insulation from damp air, and low amount of solid phase required. The methods of measuring C in suspension flow is more complicated and requires a large quantity of solid phases. However, there are also advantages, i.e., the velocity of C can be measured in conditions similar to those of an continuous production process and can be employed for measuring C of low φ . The method of measuring C in the suspension flow is a satisfactory supplement to the method of layer suspension. There are 8 figures, 1 table and

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Constricted Drop of Particles

S/173/59/012/04/02/003

19 references: 13 are Soviet, 1 Czechoslovakian, 4 English and 1 German.

ASSOCIATION: Institut organicheskoy khimii AN Armyanskoy SSR (Institute of Organic Chemistry of the AS of the Armenian SSR)

SUBMITTED: March 12, 1959

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GASPARYAN, A.M.; ZAMINYAN, A.A.

Vertical motion of a polydisperse suspension. Dokl. AN Arm. SSR 31
no3:153-159 '60. (MIRA 13:12)

1. Institut organicheskoy khimii Akademii nauk Armyanskoy SSR.
Predstavleno akademikom AN Armyanskoy SSR I.V.Yegiazaryanom.
(Suspensions (Chemistry))

S/091/61/000/005/004/024
B102/B202

AUTHORS: Gasparyan, A. M., Zaminyan, A. A.

TITLE: Decelerated fall of spherical particles

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1961, 321, abstract
5M42 (5I42) ("Kinja inst. eserleri. AzerbSSR Yelmler Akad.,
Tr. In-ta khimii. AN AzerbSSR, 1959, 17, 106-113)

TEXT: The authors studied the process of the decelerated fall of spherical particles in the interval of the Reynolds numbers $Re = 0.012-700$. The velocities of the decelerated fall of glass balls of a diameter of 50-300 μ m and of lead balls were measured in water and glycerin solution at temperatures of from 10-95°C by the method of the suspended layer. The experimental data are given in the form of diagrams (relative velocity of the decelerated fall as a function of Re). The authors obtained equations for determining the relative velocity of the decelerated fall which are analogous to the equations by P. V. Lyashchenko (Gravitatsionnyye metody obogashcheniya (Gravitational methods of enrichment), 1940). See also RZhKhim, 1960, no. 24, 96723. [Abstracter's note: Complete translation.]

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ZAMINYAN, A.A.

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S/173/59/012/05/04/009

10. 4000

AUTHORS: Gasparyan, A.M.; Zaminyan, A.A.

TITLE: Constricted Drop of Monodispersed Spherical Particles (Communication 2)

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, 1959, Vol 12, No 5, pp 31 - 45

TEXT: The authors referring to Part I of this article published in No 4, 1959, pp 23 - 34 of this periodical dealing with the same problem and based on equation $C = KC_0 m^n$, investigate in this article the constricted drop of similar spherical particles. To obtain more precise data on values K and n, and on their relation to the Reynolds number further tests have been carried out using following types of globules: glass (Fig. 1), paraffin, obtained by the method shown in Figure 2, lead, steel and aluminosilicate. The degree of equality and exact proportions of globules were determined by measuring, the results of which are shown in Table 1, whereas the basic data are shown in Table 2. As mediums were used: water at temperatures of 10-90°C, aqueous glycerin solutions (20-95% glycerin), soda solution of 1.05 g/cm³ density and bromoform with a density of 2.87 g/cm³. The rate of the con-

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Constricted Drop of Monodispersed Spherical Particles (Communication 2)

stricted drop (C) was recorded by six different methods: 1-low consumption expansion by water at room temperature (Fig. 3); 2-expansion at high temperatures (Fig. 4); 3-processing with high water consumption; 4-processing with a limited quantity of medium (Fig. 5); 5-processing with concentrated glycerin solutions at 80-100°C (Fig. 6); suspension of particles of a lower density than the medium (Fig. 7). Forty seven series of tests were carried out, the results of one of them (No 43) are shown in Table 3. The recording was done according to method No 1 and following symbols were used: V-volume of suspended layer in cm^3 ; Q-water consumption in cm^3/sec ; t-temperature of medium °C; C-rate of drop in the free section of column, in cm/sec ; φ -volumetric portion of solid suspension. The curve $C = f(\varphi)$ (Fig. 8) was obtained according to C and φ in Table 3. Basic characteristics of all 47 tests are shown in Table 4 in which following symbols were used: Re-free drop of particles; C_0 values were calculated according to Lyashchenko's method and marked by triangles; experimental C_0 values were determined graphically and the K value of Equation 1 as correlation of these two C_0 . Value n of Equation 1 was established by a slant of the straight line in the coordinates $\lg C_0$ versus $\lg m$. In Figures 9, 10, 11 and 12 the same series of

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Constricted Drop of Monodispersed Spherical Particles (Communication 2)

tests are expressed in coordinates $\lg C$ versus $\lg m$. Figure 9 shows results of tests on suspension of glass globules and Figures 10, 11 and 12 the results in regard to aluminosilicate, paraffin and metal globules. Figure 13 shows the graphical processing of series No 16 tests. Figure 14 is based on n and Re values given in Table 4. According to the results obtained the following formulae can be proposed for the determination of the drop rate of constricted spheric particles: $Re < 0.5$ $C = C_0 m^5$ (laminar zone); $0.5 < Re < 500$ $C_0 = 0.8 C_0 m^n$ (transition zone) and $Re > 500$ $C_0 = 0.8 G_0 m^{2.65}$ (turbulent zone). In view of corrections caused by the influence of column diameter on some of the tests, nearly all deviations remain within $\pm 10\%$. L.N. Yerkova and N.J. Smirnov are mentioned in the article. There are 4 tables, 14 figures and 6 Soviet references.

X

Card 3/3

ZAMINYAN, A.A.

GASPARYAN, A.M.; ZAMINYAN, A.A.

Mechanism of particle fall in a viscous medium. Dokl. AN Arm.
SSR 26 no.1:39-46 '58. (MIRA 11:5)

1.Khimicheskiy institut Akademii nauk Armyanskoy SSR. Predstavleno
N.Kh. Arutyunyanom. (Sedimentation and deposition)

ZAMINYAN, A.A.

GASPARYAN, A.M.; ZAMINYAN, A.A.

Disruptive sedimentation in chemical apparatus. Dokl. AN Arm. SSR 19
no.5:149-152 '54. (MIRA 8:7)

1. Khimicheskiy institut Akademii nauk Armyanskoy SSR. Predstavleno N.Kh.
Arutyunyanom. (Chemical apparatus)

ZAMINYAN, A.A.

USSR.

✓ Breakdown of precipitate in equipment. A. M. Gasparyan and A. A. Zaminyan. *Doklady Akad. Nauk Arm. SSR*, 1974, 143-144 (in Russian; Armenian summary) (1974). -- The problem of calcn. of hydrostatic pressure necessary to effect a mech. break-up of a ppt. settled in a trap carrying a suspension of solid particles in a liquid medium is considered. For an incompressible grain structure of the solid the following equation gives the measure of the conditions required to bring the solid back into suspension. $P_2 = (G/S_1) (1/\eta - 1/\eta_0)$, where η and η_0 are sp. gr. of liquid and solid, resp., G is total wt. of solid, S_1 cross-section of the ppt. in the inlet tube, and P_2 pressure drop in the ppt. The equation was satisfactorily checked with a suspension of sand in H₂O. G. M. Koslagoff

ZAMINYAN, S. S., Cand Bio Sci -- "Peculiarities of the
development, growth, and biology of ^{the flowering} ~~efflorescence~~ of corn
morphophysiological types." Yerevan, 1961. (Mos Order
of Lenin and Order of Labor Red Banner State U im Lomonosov)
(KL, 8-61, 236)

-146-
- 145 -

ZAMINYAN, S.S.

Viability of reproductive organs in corn under conditions prevailing
in the Ararat Lowland, Armenian S.S.R. Izv. AN Arm. SSR. Biol.
nauki 14 no. 4:57-62 Ap '61. (MIRA 14:4)

1. Biologicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta.
(ARARAT REGION—CORN BREEDING)

ZAMIN'YAN, S.S.

Morphological analysis of some corn varieties raised in the Ararat
Lowland of the Armenian S.S.R. Izv. AN Arm. SSR. Biol. nauki 13
no.3:87-90 Mr '60. (MIRA 19:8)

1. Moskovskiy gosudarstvennyy universitet.
(ARARAT REGION—CORN (MAIZE)—VARIETIES)

ZAMINYAN, T. S., OGANESYAN, S. S. (USSR)

"Changes of Muscle Proteins during Denervation (read by title)."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961

OGANESYAN, S.S., starshiy nauchnyy sotrudnik; ZAMINYAN, T.S.

Amperometric titration of thiol compounds with mercury.
Vop. radiobiol. [AN Arm. SSR] 1:107-114 '60. (MIRA 15:3)

1. Iz Instituta fiziologii imeni L.A. Orbeli i Sektora
radiobiologii AN Armyanskoy SSR.

(MERCAPTO COMPOUNDS—ANALYSIS)

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S/252/62/034/005/001/002
1015/1215

AUTHORS: Oganessian, S. S. and Zaminyan, T. S.

TITLE: The separation of the water soluble proteins of the myocardium by paper electrophoresis in the normal heart and after ionizing irradiation

PERIODICAL: Akademiya nauk Armyanskoy SSR. Doklady. v. 34, no. 5, 1962, 207-210

TEXT: No data are found in medical literature about the effect of ionizing radiation upon the synthesis of myocardial proteins. These experiments were performed on 20 rats (10 controls). The animals were submitted to a single whole-body irradiation with a PYM-3 (RUM-3) apparatus at a dose rate of 500 r/hour. On the 9th- 10th day after irradiation the animals were killed by decapitation. The water-soluble proteins were obtained from the myocardium after perfusion of the latter with physiological solution and subsequent homogenisation, extraction (in phosphate buffer at pH 7.5) and centrifugation. Paper electrophoresis was performed on both ЭФА-1 (EFA-1) and MGF apparatus at a gradient of 5-12 v/cm. The paper used was the chromatography paper "B" made in the USSR. A marked shift in the various protein fractions was found in the irradiated animals. The shifts were always in the opposite direction. The fractions containing aldolase and phosphorylase decreased and the fractions n-m which contain enzymes, which also participate in the

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The separation of the water...

S/252/62/034/005/001/002
1015/1215

oxidative phosphorylation, increased. The fact is difficult to explain. The fraction containing myoalbumine showed no changes, another peculiar fact. The use of the chromatography paper "p" for electrophoretic separation of water-soluble proteins is recommended. There are 2 figures and 1 table.

ASSOCIATION: Institut fiziologii im. akademika L. A. Orbeli Akademii nauk Armyanskoy SSR (Institute of Physiology im. Academician L. A. Orbeli, Academy of Sciences, Armyanskaya SSR)

SUBMITTED: February 20, 1962

Card 2/2

L 9812-66 ENT(12)/T/EWA(m)-2

ACC NR: AP5027991

SOURCE CODE: UR/0386/65/002/007/0314/0317

AUTHOR: Babayev, Z. R.; Zamiralov, V. S.; Solov'yev, L. D.

ORG: Joint Institute of Nuclear Research (Ob'yedinennyy institut yadernykh issledovaniy)

TITLE: Electromagnetic properties of mesons in broken SU(6) symmetry

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. (Prilozheniye), v. 2, no. 7, 1965, 314-317

TOPIC TAGS: strong nuclear interaction, quantum field theory, vector meson, radiative decay, magnetic moment

ABSTRACT: It is shown that the relations between the radiative-decay probabilities and the magnetic moments of vector mesons, obtained from unitary symmetry broken only by electromagnetic interaction, remain unchanged when account is taken of medium-strong interaction that leads to observable mass splitting within unitary multiplets. Within the framework of both SU(6) and SU(3) symmetry, the electromagnetic current describing the radiative decays is a linear combination of octets and singlets, made up of the tensors of vector and pseudoscalar mesons and of a tensor that corresponds to the medium-strong interaction. In the case of SU(6) symmetry it is necessary to make up all the possible tensors $I_B^{\alpha} \equiv I_{BB}^{\alpha A}$ of the 35-plet of mesons M and the tensor $I + \alpha T$, where T corresponds to the medium-strong interaction. By separating the contributions that transform in accordance with representations (8, 3) and (1, 3) of the

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ACC NR: AP5027991

group $SU(3) \times SU(2)$, and using for T the tensor employed in the derivation of the mass formulas (M. A. Beg and V. Singh, Phys. Rev. Lett. v. 13, 418, 1964), which is a combination of parts of the 35-, 189-, and 405-plets that transform in accordance with the representations (1, 1) and (8, 1), an expression is obtained, taking C-invariance into account, for the Lagrangian describing radiative decays and the scattering in a magnetic field, as well as for the current. The latter is shown in the general case to lead only to the relations of $SU(3)$ symmetry. If the current is assumed to be an octet, then the two schemes give, generally speaking, different results. It is perfectly feasible to check these relations experimentally. V. Zamir-
lov is grateful to S. A. Rogova for a preprint of her paper dealing with similar problems. Orig. art. has: 9 formulas. *SS*

SUB CODE: 18, 20 SUBM DATE: 28Jul65/ OTH REF: 004

Card 2/2

ZAMIRCA, P., ing; SCHMIDT, H., ing.; AMARASCU, Ritta, ing.

Gunited concrete, a new method of timbering and waterproofing
underground constructions. Pt. 1.
Rev min 14 no.10:432-442 0'63.

ZAMIRCA, P., ing.; SCHMIDT, H., ing.; AMARASCU, Ritta, ing.

Cement gun, a new method of supporting and waterproofing
underground constructions. Pt.2. Rev min 14 no.11:435-493
N°63.

ZAMIRCA, St.

"Uranium metallurgy" by W.D.Wilkinson. Vol.2. Reviewed by
St.Zamirca. Studii cerc metalurgie 8 no.4:485-488 '63.

PROTOPOPESKU, M. [Protopopescu, M.]; ZEMYRKE, Sh. [Zamirca, S.];
PETRESKU, N. [Petrescu, N.]

Determining the cooling characteristics of the elements from
semiconductor alloys based on tellurium. Rev Roum metalurg
8 no. 2:175-182 '63.

ZAMIRCA, St.

"Metal and alloy fragility and fragilization" by P. Adanis,
P. Blanchard. Reviewed by St. Zamirca. Studii cerc metalurgie
8 no.4:488-491 '63.

PROTOPOFESCU, M.; ZAMIRCA, St.; PETRESCU, N.

Determination of the frigeolement characteristics in semiconductor alloys with tellurium base. Studii cerc metalurgie 8 no.3: 255-264 '63.

DUMITRESCU, Tr.; ZAMIRCA, St.; KATHREIN, A.; FISCHGOLD, R.

Influence of plastic deformation technology on the 80%
Ni — 20% Cr thin alloy sheet quality. Studii cerc
metalurgie 8 no.4:473-482 '63.

PROTOPESCU, M.; ZAMIRCA, St.; PETRESCU, N.; TRITA, V.

Specific electric resistance of indium depending on the degree of
purity. Studii cerc metalurgie 7 no.3:305-317 '62.

ZAMIRCA, STEFAN

The influence of plastic deformation on the corrosion of rolled cast iron with spheroidal graphite. Irina Cornea and Stefan Zamirca. *Rev. roumaine mèl., Acad. rep. popu-*

3

laire Roumaine 4, 41-6(1969).—Corrosion tests with gray cast iron in the cast and cast and annealed forms, and with spheroidal cast iron at different grades of plastic deformation followed by annealing at 250° and 600°, were made in a 5% soln. of HCl and in a 5% soln. of NaCl at room temp. The corrosion resistance in 5% HCl of the spheroidal iron is greater than that of the gray cast iron with the same analysis. There is only a little difference in corrosion resistance of both types in 5% NaCl. Photographs of the microstructure of the iron after deformation and after the following annealing are shown. Diagrams are given of wt. loss plotted vs. time; every point is the av. of 3 to 6 parallel tests.

J. Kleesekopur

nm

99

ZAMFCA, SI: CORNEA, L

Influence of plastic deformation on the corrosion of cast iron with laminated nodular graphite. p.451

Academia Republicii Populare Romina. Centrul de Cercetari Metalurgice
STUDII SI CERTARI DE METALURGIE. Bucuresti, Rumania
Vol.3, no.4, 1959

Monthly list of East European Accessions (EEAI) IC, Vol.8, no.8, Aug. 1959

Uncl.

ZAMIRCA, S.; CORNEA, L

The influence of thermal treatment on the anticorrosive resistance of thin plates of stainless steel 20-9 containing titanium. II. Intercrystalline corrosion. p. 295.

STUDDI SI CERCENTARI DE METALURGIE Vol. 3, no. 3, 1958

Monthly list of East European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

ZAMIRCA, ST.

PHOTOPRESCU, M.

ROMANIA

No degree given

No affiliation given

Bucharest, Studii si Cercetari de Metalurgie, No 3, 1962, pp 305-317.

"Electric Resistivity of Indium According to the Degree of Purity."

Co-authors:

ZAMIRCA, St.

PHOTOPRESCU, M.

TRITA, V.

ZAMIRCA, St.

Proceedings of the European Symposium on Corrosion Inhibitors;
Ferrara, Italy. Studii cerc metalurgie 7 no.4:486-487 '62.

ROMANIA

DUMITRESCU, Tr.; ZALUTON, St.; KACHURIN, A.; FISCHGOLD, R.

Bucharest, Studia si Cercetari de Metalurgie, No 4, 1963,
pp 473-482

"The Influence of the Technology of Plastic Deformation on the
Quality of Thin Metal Sheet Made of an Alloy of 80 % Ni and
20 % Cr."

(4)

ROMANIA

PROTOPESCU, M.; ZAMIRCA, St.; PETRESCU, N.

Bucharest, Studii si Cercetari de Metalurgie, No 3, 1963, pp
255-264

"Determination of the Characteristics of Cooling Elements in
Semi-Conducting Alloys with a Tellurium Base."

CORNEA, Irina, ing.; ZAMIRCA, Stefan, ing.

Air corrosion on metal construction in industrial centers. Metalurgia
constr mas 14 no.10:881-888 0 '62.

1. Centrul de cercetari metalurgice al Academiei Republicii Populare
Romine.

COUNTRY : Rumania H-4
 CATEGORY : Chemical Technology. Chemical Products and Their
 Applications--Corrosion. Corrosion control
 ABS. JOUR. : RZKhim., No. 22 1959, No. 78890
 AUTHOR : Cornea, I. and Zamirca, S.
 INST. : Rumanian Academy of Sciences
 TITLE : The Effect of Plastic Deformation on the Corrosion
 of Cast Iron Containing Nodular Graphite
 ORIG. PUB. : Studii si Cercetari Metalurgie Acad RPR, 3, No 4,
 451-461 (1958)
 ABSTRACT : The results from comparative laboratory corrosion
 tests on grey iron (GI) and on rolled and cast
 iron specimens containing nodular graphite (NG)
 in 5% HCl and NaCl solutions at room temperature
 have shown that the corrosion of NG-containing
 iron in HCl is greater than that of GI. All of
 the specimens tested exhibited fairly close values
 of the corrosion rate in NaCl after annealing at
 250°. Of the specimens subjected to heat treat-
 ment at 600°, cast NG-containing iron has the lowest

CARD: 1/2

ZAMIRCA, St.; KATHREIN, A.; ILIESCU, P.; RIZESCU, C.

Corrosion of the gray-iron pieces with solders. Studi cerc
metalurgi 6 no.3:293-304 '61.

AUTHOR: Petrencu, N.; Zamirca, St.; Somesan M.

21

26
B

TITLE: Study of the structural stability of the semiconductor compound InAs

SOURCE: Journal of Semiconductors, v. 9, no. 2, 1974, 113-122

TOPIC TAGS: semiconducting material, indium compound, arsenide, radioactivity measurement, thermal stability

ABSTRACT: In order to study the thermal stability of In-As compounds, the authors determined the kinetics of the dissociation of the compound with volatile elements by means of measurements of the radioactivity of marked constituents. The results show that the dissociation of the compound is a first order process. The dissociation rate increases with the temperature and the time in which the compound was exposed to the atmosphere.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: SS

NR REF SOV: 002

OTHER: 011

JPRS

Card 1/1

ZAMIRCA, S

Effect of the thermal treatment on the corrosion resistance of thin sheets of stainless steel 20-24 with titanium. III. Intercrystalline corrosion. B. Irina Cornea and Stefan 24-mhrca. Acad. rep. populare Romine, Studi cercare met-3, 1967, 64 (1968); ch. C.A., 52, 18158c. Steel contg. Cr 20, Ni 9%, and some Ti was held at 1050, 1100, or 1150° for 10, 20, 30, or 40 min. The ferrite content was detd. The intercryst. corrosion was then detd. by heating the samples first to 650° for 1/2, 3, or 8 hrs., and by boiling them then for 72 hrs. in a CuSO₄ soln. The corrosion was detd. by the loss of wt. of the samples and by the no. of cracks which occurred when the samples were bent 90°. The presence of ferrite in austenitic steels decreases the sensitivity to intercryst. corrosion. This sensitivity increases with the temp. of thermal treatment and with the duration of the treatment at one temp. In plant practice treat the steel 20 min. at 1050-1100°, in order to get best corrosion resistance. Werner, Jacobson

GW
1/1

Distr: 4E20

5
1-PMI/JS
1-HJC/HM
1-MJC/DR
1

Effect of plastic deformation on corrosion of sheets of
cast iron with nodular graphite. *Irina Cornea and Stefan
Zimires. Acad. rep. populare Romine, Studi cercetari met.
154-21 (1958).*—Samples of gray cast iron and cast iron
with nodular graphite were annealed for 3 hrs., some at
250°, others at 600°. The irons were exposed to 5% HCl
or 5% NaCl, both with agitation and statically, and the
solus. were changed every 48 hrs. Cast iron with nodular
graphite is attacked more by HCl, the higher the plastic
deformation, in samples treated at 250°, i.e., the ones which
still preserve the stresses. After annealing at 600° the
corrosion drops greatly, because the internal stresses have
disappeared and perhaps also because a ferritization had set
in which went more or less to completeness. In the NaCl
tests both types of cast iron show the same corrosion behavior
and the corrosion again is heavier, the more deformed the
metal was by rolling. Werner Jacobson

5
1-MJC/HM
1-MJC/EV
1

Distr: hE2c

JAT MC JD

S. ZAMIRCA

Distr: 4E2c/4E3d

Corrosion resistance of stainless steel. I. Influence of heat treatment on oxidation at high temperature of I. Cornea and S. Zamirca. *Rev. met. Acad. rep. populare Romane* 3, 23-30 (1958); cf. C.A. 52, 10158c. Studies with 20-21 stainless thin sheets showed that corrosion decreased with decrease in ferrite content and with decrease in grain size. Influence of ferrite is shown by corrosion in air at temps. of 600-700°, while for temps. of 800-900° grain size is dominant. Harmful action of ferrite is probably explained by reduction of chrome content of austenite grains. Quenching temps. of 1100° for short periods are recommended for these sheets to eliminate the ferritic constituent.

R. S. Young

6
1-MOL. MAN
1-J. H.
2

JK *JK*

ZAMIRCA, S.

1220
4

Structural transformations by annealing of nodular-graphite cast iron which was plastically deformed. Irina Cornea and Stefan Zamirca. Acad. rep. populare Romine, Studi cercari met. 4, 181-7(1979).—A nodular-graphite cast iron, rolled to 4 different thicknesses, was annealed under A_1 (630°) and above A_1 (700°) for varying times. In specimens with a uniform structure of the metallic mass the heat-treatments produce varying ferritization, depending upon the degree of rolling. The presence of P eutectic impedes the decompn. of the pearlite in its immediate environment, but this effect is obliterated by the strong tendency toward ferritization of the specimens. On portions of the surface, a new constituent X* is found surrounding the graphite. It is of greater microhardness than pearlite and its quantity increases with the degree of rolling, with temp., and with the duration of annealing. In specimens rolled with $\Delta H = 70\%$ a constituent X is also present, replacing the graphite partially or totally. It appears around X* and its microhardness is lower than that of ferrite.

Felicitas D. Goodmann

ZAMIRCA, S.

Corrosion resistance of stainless steel. II. Influence of heat treatment on resistance to intercrystalline corrosion. Irena Čornea and Stefan Zamfir, Rev. ind. Acad. rep. populare Roumaine, 17-52(1953)(in English); cf. C.A. 53, 4067d. — Presence of ferrite in 18-8 steels reduces their susceptibility to intercryst. corrosion. Heat treatment increased the corrosion when quenching temp. and holding time are increased. Recommended conditions are temp. 1050-1100° and holding time 20 min.

R. S. Young

ZAMIRCA, St.; PETRESCU, N.; SOMESAN, M.; PROTOPOPESCU, M.

Some aspects of obtaining the InAs semiconductor compound.
Studii cerc metalurgie 9 no.2:383-388 '64.

PETRESCU, N.; ZAMIRCA, St.; SOMESAN, M.

Study of the structural stability of the semiconductor compound
InAs. Rev Roum metallurgie 9 no.2:149-159 '64.

PETRESCU, N.; ZAMIRCA, St.; SOMESAN, M.

Study of the structural stability of the InAs semiconductor compound. Studii cerc metalurgie 9 no.2:119-128 '64.

Country : Rumania H-4
 Category= :
 Abs. Jour. : 46131
 Author : Cornea, I.; Zamirca, St.
 Institut. : Rumanian Academy
 Title : Effect of Thermal Treatment on Corrosion Resistance of Thin Sheets of Titanium-Containing Stainless Steel 20-9. I. Atmospheric Corrosion*
 Orig. Pub. : Studii si cercetari metalurgie. Acad. RPR, 1958, 3, No 1, 19-31

Abstract : Study of the effect of thermal treatment on resistance to gas corrosion at elevated temperature (600, 700, 800 and 900°) of thin sheets of Ti-containing, stainless Cr-Ni-steel having the composition (in %): C 0.12, Mn 0.8, Si 1.55, Cr 20.11, Ni 9.77, Ti 0.27 (the samples were subjected to a preliminary hardening at 1050-1150° followed by cooling in water). It was found that under these conditions the rate of corrosion (RC) of the steel is affected by the ferrite content and crystal size. Decrease in the amount of ferrite lowers RC, while increased crystal dimensions increase RC. Since these two parameters depend on conditions of

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* at Elevated Temperature.